Editor: Holly Berthold, *Metro Media Specialist* **Layout:** Rene Parker, *Administrative Staff Assistant*

2004 Coming Events...

Prairie Day

September 11 10 a.m. – 4 p.m. Shaw Nature Reserve, Gray Summit

Follow the herd to this family event at Shaw Nature Reserve's 75-acre tall grass prairie. Hike with a naturalist to learn about prairie life, play pioneer games, listen to a string band or storyteller and watch demonstrations of weaving, spinning, flintknapping and other crafts. View exhibits of mammals, reptiles, amphibians and insects and watch live birds of prey. Purchase wildflowers and seeds from native plant nurseries or visit the concessions to buy bison burgers, home-brewed sarsaparilla, kettle corn and homemade baked goods. Cost is \$3 for adults; free for children ages 12 and under, as well as members of the Missouri Botanical Garden and Shaw Nature Reserve. Call (314) 301-1500 for more information.

National Hunting & Fishing Day

September 25

Look for more details in a future Making Tracks!

If you would like to receive this newsletter in the mail, please call (636) 441-4554.



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Making Tracks



July 2004

Volume 04, Number 07



ree growth and health require an adequate supply of water throughout the year. During most parts of the year, natural rainfall is sufficient to sustain trees. Most healthy trees can even sustain periods of moderate

dryness. However, the summer months usually contain periods of several weeks without any precipitation. Whenever a tree loses moisture through its leaf surface and is not able to replace it, "water stress" develops within the tree. Windy conditions can accelerate the stress process by increasing the amount of moisture being lost through the leaf surfaces. Symptoms of water stress include leaf droop and the eventual drying of the leaf. Water stress may not kill a tree outright, but it could weaken a tree and predispose it to other insect and disease problems.

During these dry conditions, any amount of water is better than none at all! If you can duplicate a rainfall of about two inches, you are doing great. You can estimate this amount of water by placing several small cans under the canopy of your trees. When the average depth in the cans equals two inches, you are done with that tree. You can always check up on yourself by probing the soil to a depth of 6-8 inches when you are done watering to make sure the soil is saturated to that depth.

Newly planted trees are the most susceptible to water stress and should be monitored closely. Many times these trees have lost a percent of their root system in the digging process and are not very efficient with water uptake.

Concentrate on watering just the basal root system of new trees and check often with a soil probe to inspect water dispersal.

Watering Your Shade Trees

By Rob Emmett, Urban Forester



Trees that are established within your landscape can be watered through several methods. The most common method is probably surface irrigation that is accomplished either through "installed systems" or lawn watering devices. Please be careful, however, to water the surface beneath the tree's canopy, but not the tree's canopy. Foliage that is watered can be sunscalded or could develop fungal foliage disorders. Trees can also be watered with lance-type root feeders, but with our tight clay soils you need to move the lance often in order to get adequate water dispersal. Remember, slow is good with all watering techniques. Water that runs off is of little value to your trees.

You have heard many times that "too much of a good thing is bad." Unfortunately, that can also apply to watering trees. The clay soils in our area have very little porosity and thus very little space for oxygen. When we oversaturate these soils, we displace what little oxygen there is and suffocate the root system of a tree. Well established trees are rarely affected, but newly planted trees must again be closely monitored by probing the soil

to a depth of 6-8 inches. It has been my experience that many more trees are lost to dryness than from overwatering. Keep your soil moist, but not soggy, and you are well on your way to successful tree watering.

August A. Busch Memorial Conservation Area

2360 Hwy D, St. Charles, MO 63304

For reservations call (636) 441-4554 Monday through Friday 8 a.m. - 5 p.m. If you are unable to attend a program, please call and cancel as a courtesy to those on our waiting list. Interpretive services are available for those with hearing loss with 5 days notice. From Hwy 40 take Hwy 94 south to Hwy D; turn west on Hwy D for approximately 3 miles. The area entrance is on the north side of Hwy D. Visit www.mdc.mo.gov/areas/stlouis/buschca/

9 **Nature Journaling**

7 p.m. - 9 p.m.Friday

(Adults) Open your mind and your senses to nature's wonders. Discover techniques to recognize, recall and record your outdoor experiences. No previous journaling experience necessary – only the desire to explore. (Reservations begin June 21.)

Babes in the Woods 10

Saturday 9 a.m. – 10 a.m. (Ages 0–3) It's never too early to start learning about nature. Bring your stroller and join us on a

begin June 21.)

Pictures with the Sun 15

Thursday 10 a.m. - 11:30 a.m.

(Ages 7-12) Children will choose pressed flowers to make pictures. These flowers will be placed on special photographic paper and exposed to the sun. (Reservations begin June 28.)

short hike to experience the outdoors. (Reservations

Beetlemania Live 30

7 p.m. - 9 p.m.Friday

(All Ages) The insect event of the year! It's The Beetles – the insects, that is! We will be exploring the diversity of beetles with beetle games, a beetle discovery table and songs sung by, of course, The Beetles. Get to see some beetles up close. Come any time between 7 p.m. and 9 p.m. and wander from activity to activity at your own pace. Fun for all ages. (No reservations required.)

31 Herons & Egrets

the Missouri Department of Conservation.

7:30 a.m. – 10 a.m. Saturday (Adults) Join us for a 2.5-mile hike to view the herons and egrets feeding in the Marais Temps Clair Conservation Area. The young have just left the nests, so we may see both young and adults feeding together. See some of the showiest members of all wading birds. Learn how to identify these birds from a distance through spotting scopes provided by

(Reservations begin July 14.)



Theme Weeks–July 2004

All classes will be offered for up to 30 participants. If students attend all three programs for the week, they will receive a certificate and a prize.

Aquatics Week

(Ages 7-12) Beat the heat and explore different aquatic environments. Please make sure to wear shoes that can get wet and muddy. No sandals please. (Reservations begin June 28.)

> 12 - Watersheds 10 a.m. – 11:30 a.m. 14 – Pond Study 10 a.m. – 11:30 a.m. 16 - Stream Study 10 a.m. - 11:30 a.m.

Herpetology Week

(Ages 7-12) Snakes, turtles and frogs, OH MY! Come join us as we discover Missouri reptiles and amphibians. (Reservations begin July 2.)

> 19 – Amphibians 10 a.m. − 11:30 a.m. 21 - Turtles *10 a.m.* − *11:30 a.m.* 23 - Snakes/Lizards 10 a.m. – 11:30 a.m.

Insect Week

(Ages 7-12) An Insect's Perspective: There are more than 200,000 individual insects for every one human on earth. They are everywhere! Insects can be found anywhere from water to land; from swamps to mountaintops. Discover an appreciation of nature by learning about the life cycles of insects. (Reservations begin July 12.)

> **26 – Butterflies & Moths** *10 a.m. – 11:30 a.m.* 28 – Chirping Insects 10 a.m. - 11:30 a.m.30 – Beetlemania *10 a.m.* − *11:30 a.m.*

Busch Shooting Range & Training Center

2360 Hwy D, St. Charles, MO 63304 (636) 441-4554

Range Hours: May 1 – September 30

10 a.m. – 4 p.m. Friday – Monday 2 p.m. – 8 p.m. Tuesday

Jay Henges Shooting Range &

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Training Center

1100 Antire Road, High Ridge, MO 63049 (636) 938-9548 For reservations call (636) 441-4554

Range Hours: May 1 – August 31 10 a.m. – 4 p.m. Thursday – Sunday

2 p.m. – 8 p.m. Wednesday

3

Handgun Basics

Saturday 9 a.m.

(All Ages) The Busch staff will take you through all the basics to handle handguns and enjoy the sport. Then we move to the range for firing practice. Firing of the handguns is optional for the participants. Youths under 16 must attend with an adult. *This course DOES NOT MEET the requirements for the Missouri Concealed Carry Law.

Air Rifle Basics for the Beginner 8

9 a.m.

(Ages 9 & up) Air rifles have had a long tradition of being one of the first firearms for many youth and families interested in the sport of shooting. Air rifles and equipment will be provided. Youths under 13 must be accompanied by an adult during the training and recommended for all others.

Canoeing Basics 15

Thursday

9 a.m. – Noon

(Ages 13 & up) This program will include information on different types of canoes, gear needed, how to read a stream and types of paddle strokes used to control the canoe. We will then move to one of the lakes to practice with the canoe, so dress appropriately. Ages 13-15 must be accompanied by an adult. Participants must have the ability to swim and tread water.

Basics of Modern Arrow Building 29

Thursday

(All Ages) The Busch staff will conduct a program to provide information to get you started like shaft selection, fletching, glues, inserts and nocks and how to put it all together. Youths under 16 must be accompanied by an adult.

1 **Basic Archery**

Thursday 6 p.m. - 9 p.m.

(All Ages) Learn the basic do's and don'ts of archery shooting, as well as techniques that will make you a good, safe archery shooter. (Register between June 1 - 30.)

Youth Hunter Education **12-16 Challenge Camp**

Monday – Friday

8:30 a.m. – 3:30 p.m.

(Ages 11-15) Youths must be Missouri Hunter Education certified to attend. Participants should dress for the outdoors and bring sunscreen and insect repellent. Cost of \$50. pavable to the Missouri Conservation Heritage Foundation, covers all materials and must be received in advance. (Register by July 5.)

Scopes & Optics Program

21 Wednesday

6 p.m. - 8 p.m.

(All Ages) This course will explain the basic operation of scopes. You will work with various types of binoculars as well. Youths under 16 must attend with an adult. (Register between June 1 – July 20.)

22&24

Bank Fishing

Thursday Saturday

6 p.m. – 8 p.m. (lecture) &

7 a.m. – 11 a.m. (fishing at MDC's Allenton Access)

(All Ages) This basic fishing course will teach you all you need to know about fishing from a bank. Bring your own lawn chair, but all other equipment including rods and bait — will be provided. Participants age 16 and older must have a fishing permit or letter of exemption per 3 CSR 10-6 of the Missouri wildlife code. (Register between June 1 – July 21.)





Rockwoods Reservation

2751 Glencoe Road, Wildwood, MO 63038

For reservations call (636) 458-2236 Monday through Friday 8 a.m. - 5 p.m. If you are unable to attend a program, please call and cancel as a courtesy to those on our waiting list. Interpretive services are available for those with hearing loss with 5 days notice. From I-44 take Hwy 109 north 4 miles to Woods Avenue; left on Woods Avenue, and then immediately right on Glencoe Road. From Manchester Road take Hwy 109 south 2 miles to Woods Avenue; right on Woods Avenue, and then immediately right on Glencoe Road. Visit www.mdc.mo.gov/areas/stlouis/

7 The Firefly: Nature's Light Show

Wednesday 7:30 p.m. - 9 p.m.

(All Ages) Learn all about these fascinating creatures, then build a bughouse to catch some. (Reservations begin June 22.)

Conservation Frontiers: Archery #129

Tuesday 6:30 p.m. – 8 p.m. (Ages 7-18) Explore basic techniques of archery. All equipment provided. (Reservations begin June 28.)

Toddling into Nature: Animal Olympics

Thursday 10 a.m. – 11 a.m. (Ages 3-5) Join us as we celebrate the summer Olympics...wildlife style! (Reservations begin July 6.)

28 Making Jams and Jellies

Wednesday 10 a.m. – Noon (All Ages) From delicious foods to learning how to preserve leaves for future identification, you will be on your way to learning about nature's grocery store. (Reservations begin July 12.)

31 The Amazing World of Bats

Saturday 8 p.m. - 9:30 p.m. (Ages 13 & up) Have fun learning about Mother Nature's "bug zappers." We will take a hike and hear some bats in their natural environment. (Reservations begin July 14.)

Theme Weeks—July 2004

Outdoor Skills Week

Learn how to take aim and properly use a bow and arrow and air rifle. We will help you learn how to build a fire, find shelter and gather water when it seems water is nowhere to be found. (Reservations begin June

June 30 – Archery

(Ages 7-10) *10 a.m.* – *Noon* & (Ages 11 & up) *1 p.m.* – *3 p.m.*

1 – Air Rifle

(Ages 7-10) 10 a.m. – Noon & (Ages 11 & up) 1 p.m. – 3 p.m.

2 - Fire, Water, Shelter

(Ages 7-10) 10 a.m. – Noon & (Ages 11 & up) 1 p.m. – 3 p.m.

Outdoor Adventure Week

What better way to spend the summer, than adventuring into the great outdoors. So grab your sunglasses, sunblock, hiking boots and your spirit of adventure and join us for a week of fun and discovery. (Reservations begin June 21.)

7 - Caving (Ages 7-10) 10 a.m. - Noon & (Ages 11 & up) 1 p.m. - 3 p.m.

You will need to bring a flashlight and wear long pants and a long-sleeved shirt.

9 - Backpacking / Hiking

staff if you have a peanut allergy.

(Ages 7-10) 10 a.m. – Noon & (Ages 11 & up) 1 p.m. – 3 p.m. Please bring a backpack and hiking boots. Inform

Wildlife Olympics Week

Join us as we celebrate the summer Olympics ...wildlife style! We will also have a fun Olympic competition to see how you compare to Missouri's nature Olympians! All participants will need to bring a sack lunch. (Reservations begin June 30.)

14 - MOlympics

(Ages 7-10) 11 a.m. – 2 p.m. &

16 – MOlympics

(Ages 11 & up) 11 a.m. – 2 p.m.

Wildlife "Fear Factor" Week

Discover some of the most amazing creatures of the animal world as we test your ability to withstand your wildlife fears in our Wildlife Fear Factor Week. (Reservations begin July 6.)

21 – Creepy Crawlies

(Ages 7-10) 10 a.m. – 11:30 a.m. & (Ages 11 & up) 1 p.m. – 2:30 p.m.

23 - Wet & Slimy

(Ages 7-10) 10 a.m. – 11:30 a.m. & (Ages 11 & up) 1 p.m. – 2:30 p.m.

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Columbia Bottom Conservation Area

801 Strodtman Rd., St. Louis, MO 63138

For reservations call (314) 877-6014 Wednesday through Sunday 8 a.m. – 4 p.m. If you are unable to attend a program, please call and cancel as a courtesy to those on our waiting list. Interpretive services are available for those with hearing loss with 5 days notice. From I-270 north take the Riverview Drive exit (last Missouri exit); go north approximately 2.8 miles. Riverview Drive becomes Columbia Bottom Road at its intersection with Larimore Road. The entrance is on the right-hand side. Visit www.mdc.mo.gov/areas/areas/bottom/

6 Retiree River Ramble

Tuesday 7 a.m. -9 a.m. (Ages 60 & over) Calling all folks over 60! Enjoy a leisurely hike with other seniors to discover the unique wonders found at Columbia Bottom. Bring binoculars and field guides if you have them; we will look at plants and birds and everything in between. We hope to make this a monthly program for seniors, so stay tuned. (Reservations begin June 23.)

11 Basic Fishing

Sunday 10 a.m. – Noon (Ages 7-12) One fish, two fish, red fish, blue fish! Join us to learn the ins and outs of fishing at Bellefontaine Conservation Area, located at Hwy 367 and I-270. Basic fishing instruction, safety and fish identification will be covered. No experience necessary. All equipment will be provided or you may bring your own. (Reservations begin June 25.)

25 Discovery Table: Missouri Mammals

Sunday 11 a.m. – 3 p.m. (All Ages & Scouts) Do you know which mammals live in Missouri? Discover the mammals of Missouri past and present and why these animals are special. Examine pelts, skulls, tracks and more from a variety of mammals like white-tailed deer, grey fox and river otter. (No reservations required.)

Theme Weeks—July 2004

Outdoor Skills Week

(Ages 10-15) This is a great chance to learn some new skills that will provide you with a lifetime of outdoor fun. Archery and fishing equipment will be provided, but you are welcome to bring your own. (Reservations begin June 25.)

 12 - Hiking
 9 a.m. - Noon

 14 - Archery
 9 a.m. - 11 a.m.

 16 - Fishing
 9 a.m. - 11 a.m.

Birding Week

(Ages 7-12) Are you a bird brain? If so, you'll enjoy this week of birding adventures. Learn how to identify a variety of birds, build a bird feeder and go birding both by day and night. (Reservations begin July 2.)

 19 – Build a Bird Feeder
 9 a.m. – 10:30 a.m.

 21 – Wetland Birds
 9 a.m. – 10:30 a.m.

 23 – Birds of the Night
 8:30 p.m. – 10 p.m.

Wetland Discovery Week

(Ages 7-12) From the soil to the plants to the animals that live there, wetlands are fascinating and important. Explore what makes a wetland so special. Please wear sneakers that can get wet and muddy. No sandals please. (Reservations begin July 9.)

 26 – Wetland Soils
 9 a.m. – 10:30 a.m.

 28 – Wetland Plants
 9 a.m. – 10:30 a.m.

 30 – Wetland Animals
 9 a.m. – 10:30 a.m.

Powder Valley Conservation Nature Center

11715 Cragwold Road, Kirkwood, MO 63122

For reservations call (314) 301-1500 Monday through Friday 8 a.m. - 5 p.m. If you are unable to attend a program, please call and cancel as a courtesy to those on our waiting list. Interpretive services are available for those with hearing loss with 5 days notice. From I-44 east in Kirkwood, take Watson Road, exit and turn north on Geyer Road. Follow Geyer Road 200 yards to Cragwold Road. Go 1 mile west on Cragwold Road. Visit www.mdc.mo.gov/areas/cnc/powder/

THEME WEEKS—July 2004

An exciting weekly series of nature-related programs runs in June. Each week has a different theme. Sessions run on Mondays, Wednesdays and Fridays. Maze Days and Lewis & Clark sessions are from 9:30 a.m. to noon and take place at Powder Valley. Kids Outdoor Skills sessions are from 9:30 a.m. to 12:30 p.m. and take place at three different sites, as indicated in the program descriptions. **Reservations are necessary.** Please see the individual descriptions for reservation start dates. Parents are strongly encouraged to accompany their children. Attend all three sessions of the week and receive a certificate and a prize!

Maze Days

(Ages 7-12) Naturalists use keys to help them identify living things. We've "spiffed" up the keys by making them into three-dimensional mazes. Practice using these handy naturalist tools while you make your way through the mazes and then make something to take home! (Reservations begin June 28.)



12 – Tree and Insect Mazes 14 - Mammal Skulls and Bat Mazes 16 - Fish and Duck Mazes

9:30 a.m. - Noon 9:30 a.m. - Noon

9:30 a.m. - Noon



Lewis & Clark

(Ages 7-12) In the early 1800s the Corps of Discovery Expedition was considered as great an adventure as a trip to the moon — a long dangerous trip to an unknown. Become a crew member on our ½ size keelboat. Find out how they prepared for the trip, how they survived and what they learned. Make something to take home! (Reservations begin July 2.)

> 19 - The Keelboat: Crew and Gear; Survival Skills 9:30 a.m. - Noon 21 – Journaling; Plants and Animals 9:30 a.m. - Noon 23 – Native Americans; Endangered Species 9:30 a.m. - Noon

Kids Outdoor Skills

(Ages 10-16) Have a child who's interested in the outdoors? We've got a deal for you! Sign 'em up for Kids Outdoor Skills and get Gun Safety, Archery and Fishing all in one week. All necessary equipment will be provided for registrants. (Reservations begin July 12.)

26 - Jay Henges Shooting Range at Beaumont/Antire Road and Hwy 44

The gun safety class begins indoors with the basics before going outside for hands-on experience at the shooting range with pellet rifles. The instructor will measure each participant's length of pull. Only those who can safely handle the firearm will be allowed to shoot. Ear and eye protection is also provided.

28 - Pavilion at Emmenegger Park in Kirkwood

9:30 a.m. - 12:30 p.m. The archery class is entirely outdoors. Instruction takes place at the pavilion before participants are allowed to practice in an open field with stationary targets.

30 - Walker Lake at Kirkwood Park 9:30 a.m. - 12:30 p.m.

The fishing class is also entirely outdoors. Participants will receive instruction and a "permit" before actually fishing. Parents are allowed to fish with their own equipment, but must have a fishing license.

14 **Babes In The Woods**

9:30 a.m. - 10:15 a.m. & 10:30 a.m. - 11:15 a.m. Wednesday

(Birth-3 years) Come with us on a stroller walk! Young children will enjoy using their senses to explore and learn about nature. (Reservations begin June 30.)

July Hallway Exhibit

Nature in Missouri Three Artists - Mixed Media

Florence Ann Bommarito

Florence Ann Bommarito is a freelance artist and has been an art instructor at St. Louis Community College – Florissant Valley campus for 15 years. Her works include illustrations, paintings and photography. Bommarito's media vary from pencil to computer.

Drew Foster

Drew Foster is an instructor at St. Louis Community College – Florissant Valley. Foster has an avid love of photography. He is exhibiting his photos of Missouri sunsets.

Ed Krings

Ed Krings is an illustrator and painter and is proficient in various media. He received his Associate's degree at St. Louis Community College and is currently a student at University of Missouri–St. Louis.

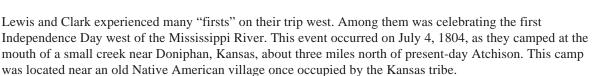
Visit Powder Valley during July and enjoy Nature in Missouri, Three Artists - Mixed Media.



Join us on Sunday, July 11, from 11 a.m. – 3 p.m. for ...

The First Independence Day West of the Mississippi

By Joe Schleeper, Volunteer Naturalist



9:30 a.m. – 12:30 p.m.

The nation had declared its independence from Great Britain on July 4, 1776, and was only 28 years old in 1804. Celebrating the nation's birthday was an extremely important event to everyone in the country. It was so special to the members of the Corps of Discovery that they did several very special things that day including firing the gun on their main ship in the morning and the evening, receiving special food and drink and holding a brief ceremony wearing their military dress uniforms. Even in the middle of the wilderness, they dressed up that day. On the whole trip, they dressed up like this very few times and only for very special occasions.

In honor of this event, Captains Lewis and Clark named two rivers in Kansas. The names were very appropriate. They named one "Creek Independence" and the other "4th of July 1804 Creek."

The flag is a symbol of Independence Day. In 1804, the flag looked different than it does today. The country did not have one style of flag. Flags could have different arrangements and numbers of stars, different numbers of stripes, and even include pictures of eagles. The flag carried by Lewis and Clark and given to some Native American tribes contained 15 stars and 13 stripes. The country had 17 states in 1804 but the flag still had only 15 stars. Today the flag has one star for each state and 13 stripes, one for each of the original 13

Playing music, singing songs, dancing and story-telling were important parts of celebrations during the Expedition as well as significant forms of communication with Native American people. Sing the songs and listen to the music and stories of Independence Day 1804 at Powder Valley's "First Independence Day West of the Mississippi" on July 11 from 11 a.m. – 3 p.m.

Stories and songs will take place from 11:30 a.m. – 12:30 p.m. and 1:30 p.m. – 2:30 p.m. Crafts, military dress and flag demonstrations and keelboat tours will be ongoing from 11 a.m. -3 p.m. No reservations necessary. For more information call (314) 301-1500.

(Information for this piece courtesy of the Kansas State Historical Society)

Bob Anderson......2600 hours Tom Bayer.....800 hours Carl Combs......1100 hours John Gerwitz......300 hours

Karen Goellner......2000 hours

Po	wder Valley Susan Hussey	Volunteer	Milesto	nes
ours	Susan Hussey		700 hours	Chery
ours	Christine Jeep		300 hours	Frank
ours	Priscilla Jenkins		600 hours	Neva V
ours	Dietrich Mueller		1000 hours	Cheri '
ours	Rita Mueller		1000 hours	

Cheryl Rafert	600 hours
Frank Sadorf	1200 hours
Neva Wasson	3900 hours
Cheri Wiese	100 hours